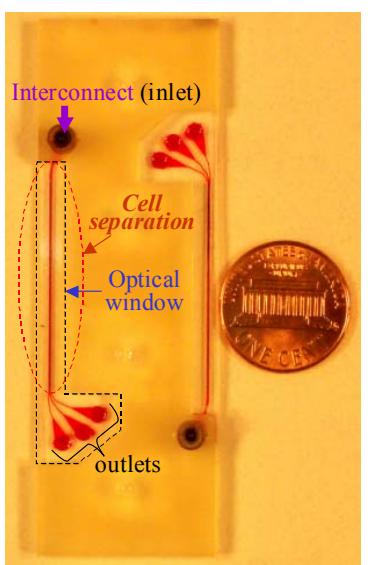
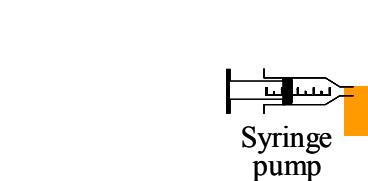
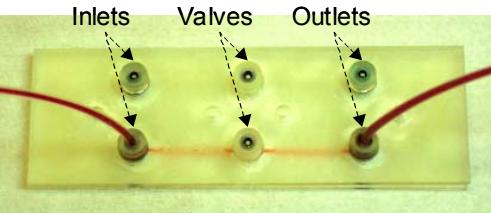


Integrated Sample Preparation for Genomic Analysis in Microsystem Format

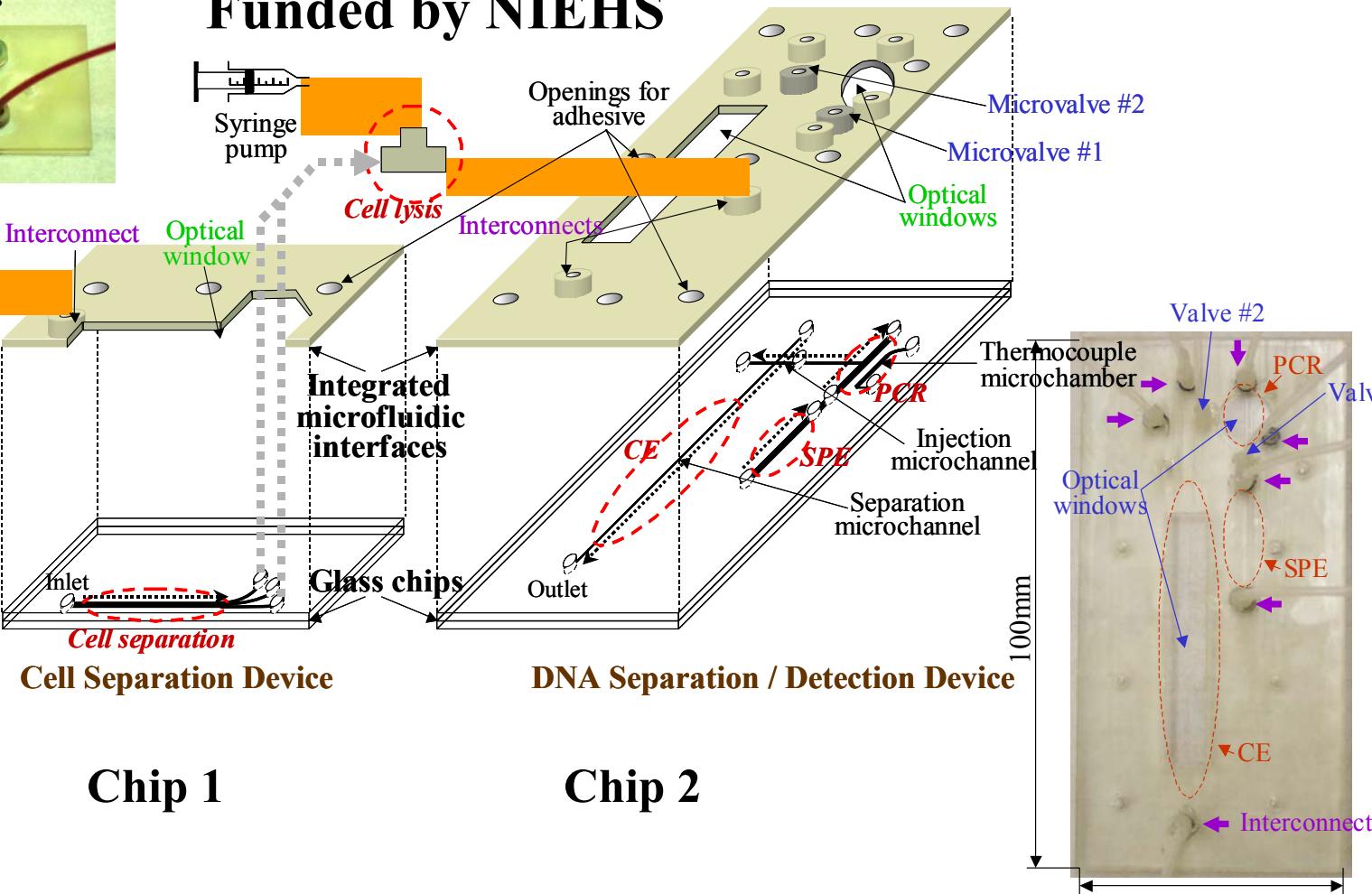
A. Bruno Frazier
Georgia Tech
ECE, BE, MIRL

Robert H. Austin
Princeton University
Dept. of Physics

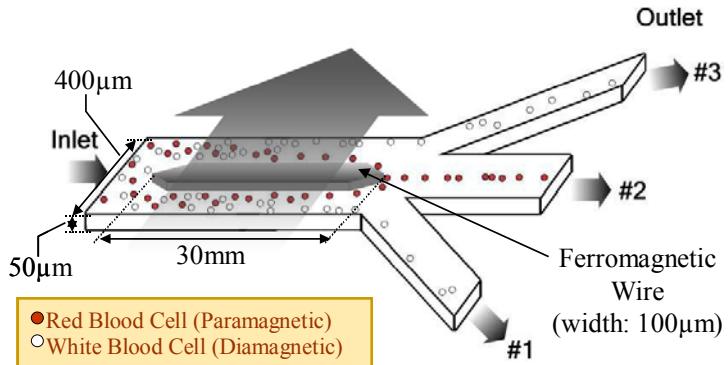
James P. Landers, PhD
University of Virginia
Dept. of Chemistry, Clinical Chem



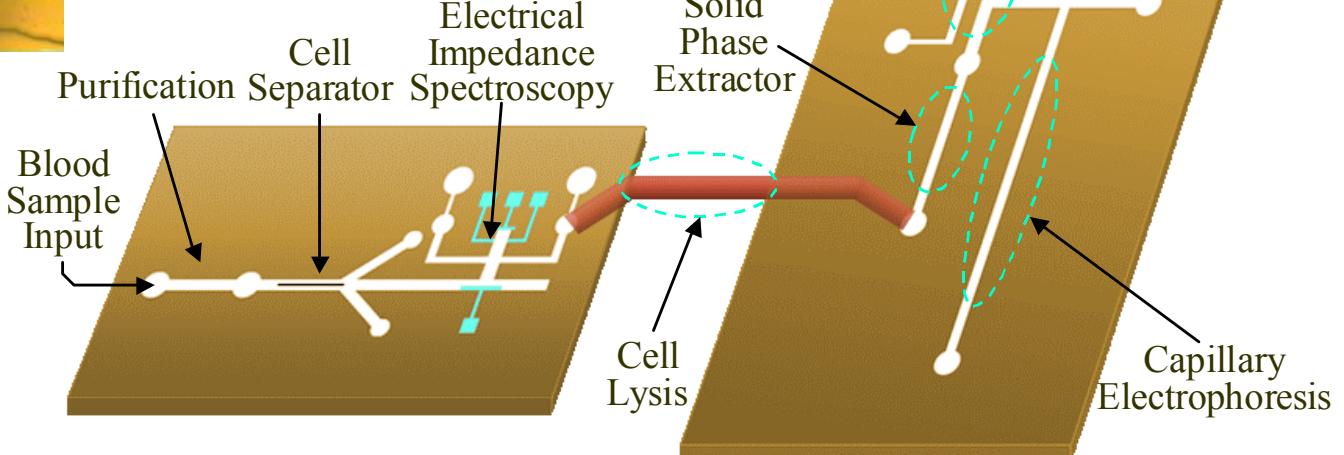
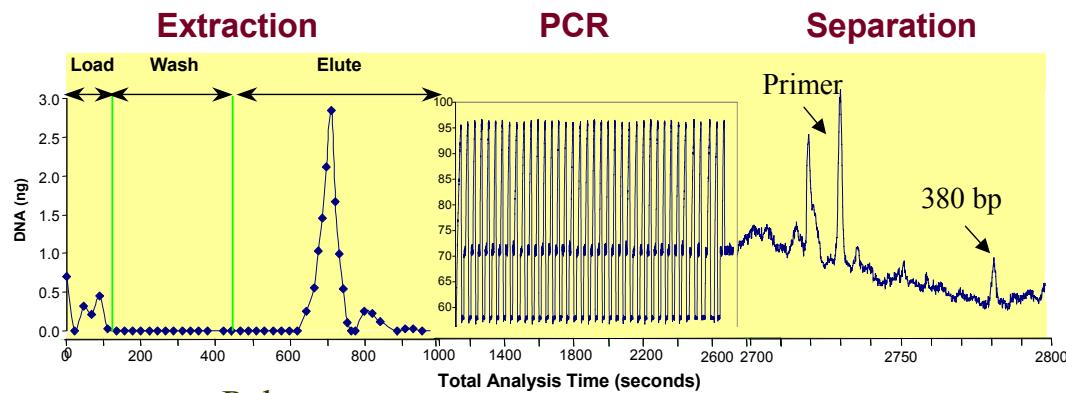
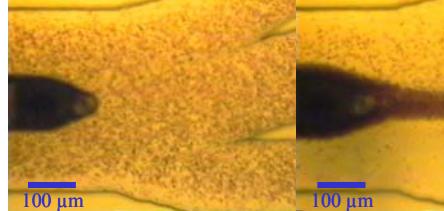
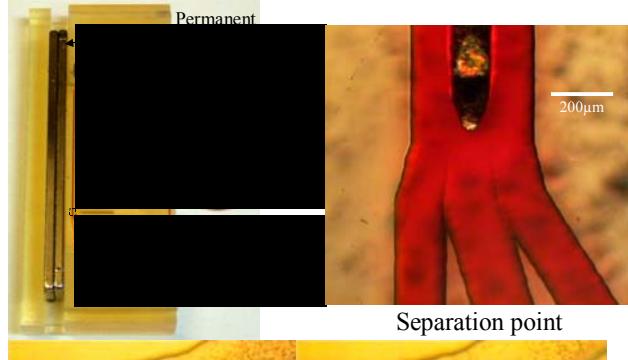
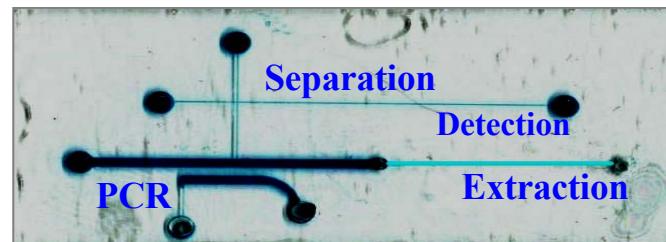
Funded by NIEHS



Conceptual Diagram of the Genetic Sample Preparation System

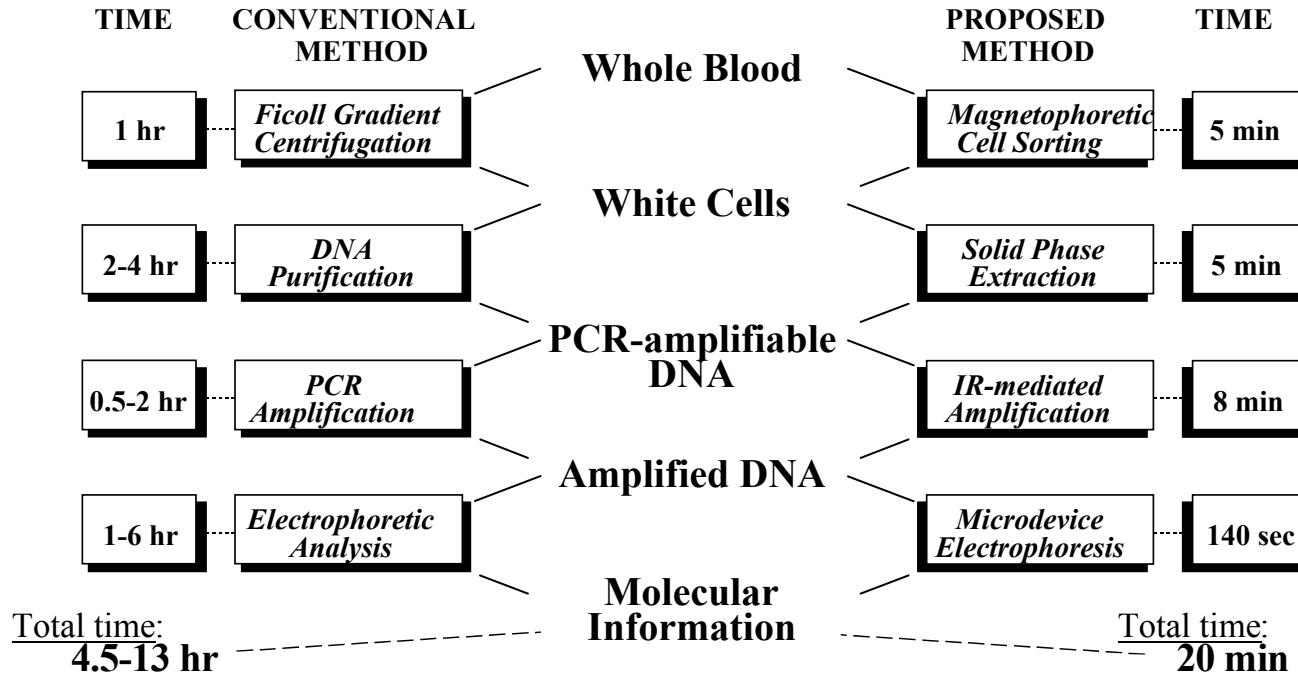


The Science



Hybrid Multi-chip Packaging

The Future:



- A. Explore Spin-off Applications for the Functional Analytical Compartments**
 - Blood Borne Disease Detection
 - Biowarfare Detection
- B. Explore Applications of the Total Sample Preparation System and the Genetic Analysis System**
 - Front-end Sample Preparation for Microarray Technologies
 - Portable Sample-in Answer-out Analytical Tools
- C. Next Generation Sample Preparation Systems for Proteomics**